EMC VERIFICATION SUMMARY

Report No. HK09031619-2

☐ Electric household products ☒ITE ☐ Others _____

Model : B600	Applicant : Binatone Electronics International Ltd. Floor 23A, 9 Des Voeux Road West, Hong Kong.
Product Description : Corded Phone with LCD	Sample Receipt Date : 31 Mar 2009
Test Conducted Date : 01 Apr 2009 to 29 Jun 2009	
☒ 1st TEST ☐ 2nd TEST (after modification)	ALL TESTS WERE CONDUCTED IN ACCORDANCE WITH: * EN 55022 : 2006 * EN 55024 (EN 61000-4-2) : 1998+A1+A2 * EN 55024 (EN 61000-4-3) : 1998+A1+A2 * EN 55024 (EN 61000-4-4) : 1998+A1+A2 * EN 55024 (EN 61000-4-5) : 1998+A1+A2 * EN 55024 (EN 61000-4-6) : 1998+A1+A2

Test Result	OK	Not OK	See Remark	Test Result	OK	Not OK	See Remark
EN55022 : 2006	☒	☐	☐	EN61000-4-4 : 2004	☒	☐	☐
EN61000-3-2 : 2006	☐	☐	☐	EN61000-4-5 : 2006	☒	☐	☐
EN61000-3-3 : 1995+A1	☐	☐	☐	EN61000-4-6 : 2007	☒	☐	☐
EN61000-4-2 : 1995+A1+A2	☒	☐	☐	EN61000-4-11 : 2004	☐	☐	☐
EN61000-4-3 : 2006	☒	☐	☐				

When determining the test conclusion, the Measurement Uncertainty of test has been considered.

Prepared and Checked by:

Signed On File
Bike Chan
Engineer

Approved by:

Digitally signed by Sit Kim Wai, Ken
Location: Intertek Testing Services Hong Kong Ltd.

Sit Kam Wai, Ken
Assistant Manager

03 Jul 2009 ***Date***

- The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.
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Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

EMC Results Conclusion
(with Justification)

RE: EMC Testing Pursuant to R&TTE Directive 1999/5/EC Performed On the Corded Phone with LCD ,
Model: B600

We tested the Corded Phone with LCD , Model: B600, to determine if it was in compliance with the relevant EN standards as marked on the EMC Verification Summary. We found that the unit met the requirement of EN 55022 and EN 55024 standards when tested as received.

The production units are required to conform to the initial sample as received when the units are placed on the market.

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Intertek Testing Services Hong Kong Ltd.
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LABORATORY MEASUREMENTS

Configuration Information

Equipment Under Test (EUT):	Corded Phone with LCD
Model:	B600
Serial No.:	Not Labelled
Support Equipment:	1. Telephone Line Simulator Model: TLS-5 2. Corded Phone
Cables:	1 x 3m telephone line
Rated Voltage:	2 x 1.5V "AAA" Alkaline Battery

EN55022 Emissions Test

Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.
EW-0014	EMI Test Receiver	ROHDESCH WARZ	ESVS30	842807/001
EW-2188	Spectrum Analyser	Agilent	E4407B	MY45103609
EW-0954	Biconical Antenna	EMCO	3104C	9911-4872
EW-0446	Log Periodic Antenna	EMCO	3146	9905-5219
EW-2375	14m Double Shield RF Cable (9kHz - 6GHz)	RADIALL	n m/br56/bnc m 14m	Nil
EW-2528	14m Double Shield RF Cable (20MHz - 6GHz))	RADIALL	nm / br5d / sma 14m	Nil

Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600

Data Table

Radiated Scan
Pursuant to EN55022 : Class B Emissions Requirement

Polarization	Frequency (MHz)	Net at 3m (dBµV/m)	Calculated Net at 10m (dBµV/m)	Limit at 10m (dBµV/m)	Margin (dB)
V	38.496	33.6	23.1	30	-6.9
V	45.689	33.9	23.4	30	-6.6
H	53.271	34.1	23.6	30	-6.4
H	64.629	34.2	23.7	30	-6.3
H	135.684	33.2	22.7	30	-7.3
H	189.369	32.8	22.3	30	-7.7

Notes: 1. Quasi-Peak Detector Data

2. Negative sign (-) in the margin column signify levels below the limit

3. Frequency range scanned: 30 MHz to 1000 MHz

4. Only emissions significantly above equipment noise floor are reported

5. Measurement Uncertainty: ±4.8dB

Data Table

Conducted Emission Test for Telecom Port
Pursuant to EN55022

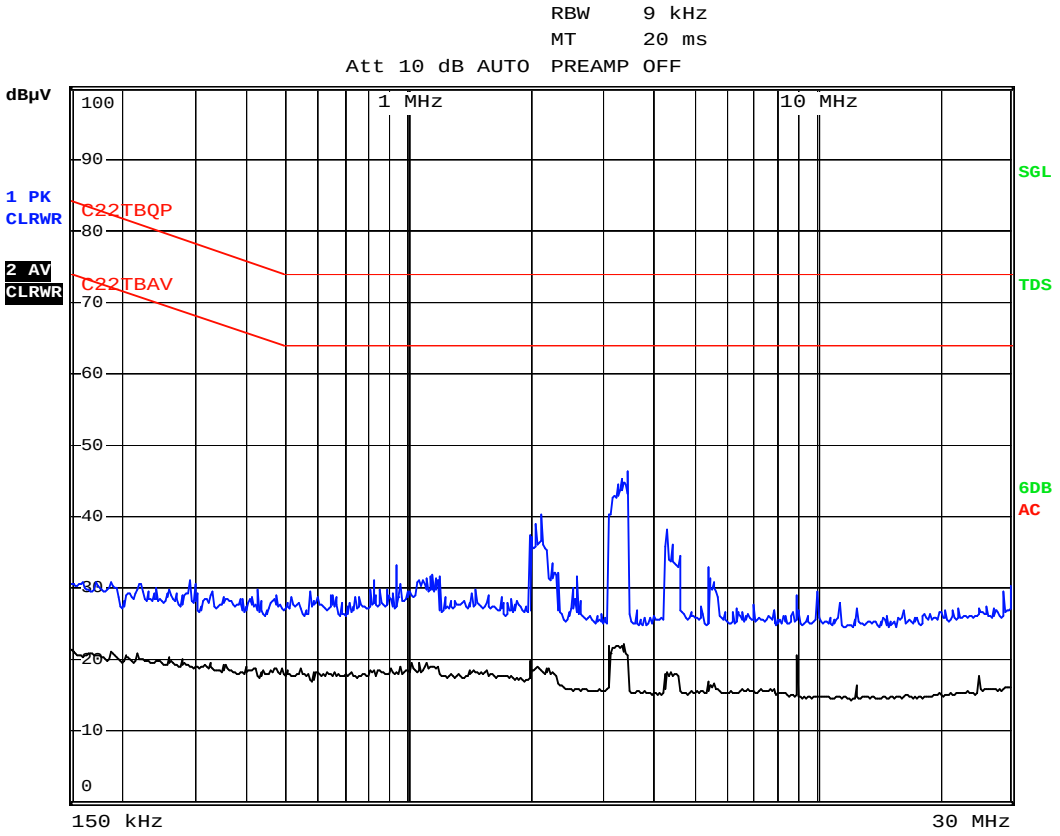
Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.
EW-2251	EMI Test Receiver	R&S	ESCI	100350
EW-0192	LISN	R&S	ESH3-Z5	828874/016
EW-0700	Pulse Limiter	R&S	ESH3-Z2	830.836/035
EW-2454	RF Cable 240cm (RG142)	RADIALL	bnc m st / 142 /bnc m ra 240cm	Nil

1. The attached graph and table were recorded for the tests on the telecommunication port.

2. A graph of Ctrl. No.: 3.3.1 is attached.

Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600
Tested Mode: Ringing
Tested Port: Telecommunication



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EN 61000-4-2
Electrostatic Discharge

Test Summary (Pursuant to EN55024)

Basic Standard:		EN 61000-4-2
Port:		Enclosure
Required Performance Criterion:		B
Level:		±8.0 kV (Air Discharge) ±4.0 kV (Contact Discharge) ±4.0 kV (Indirect Contact Discharge)
Time Between Each Discharge:		1 second
Test Mode:		Standby, Handset On Line, Speakerphone On Line, Incoming Caller ID, Ringing, Redial
Test Setup:		Table-top
Test of Post-installation:		N/A
Test Point:	Air Discharge:	All insulated enclosure and seams
		All the points where contact discharge cannot be applied
	Contact:	All conductive surfaces of the EUT
	HCP:	All sides of the EUT
	VCP:	Four faces of the EUT

Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.
EW-2305	ESD Gun	KIKUSUI	KES4021	LJ004068

Test Results

EN 61000-4-2
Electrostatic Discharge

Discharge Type	No. of discharge	Applied Voltage	Result (Pursuant to EN55024 criterion B)
Contact Discharge	25	+4kV	OK
	25	-4kV	OK
Air Discharge	10	+8kV	OK
	10	-8kV	OK
Indirect HCP Discharge	25	+4kV	OK
	25	-4kV	OK
Indirect VCP Discharge	25	+4kV	OK
	25	-4kV	OK

☒ Additional Information

☐ See additional information

☒ Meet particular performance criteria stated in the relevant Annex(s) of EN55024.

Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600

EN 61000-4-3
Radiated Immunity

Test Summary (Pursuant to EN55024)

Basic Standard:	EN 61000-4-3
Port:	Enclosure
Required Performance Criterion:	A
Level:	3.0 V/m (rms)
Test Modulation:	1kHz, 80% AM
Frequency:	80 MHz to 1000 MHz
Dwell Time:	1s
Frequency Step:	1%
Temperature:	24°C
Relative Humidity:	48%
Test Facility:	Full Anechoic Chamber
Antenna Polarization:	Horizontal and Vertical
Type of Antenna:	Bi Conic Log-Periodic (Hybrid)
Test Distance:	3m
Test Mode:	Standby, Handset On Line, Speakerphone On Line, Incoming Caller ID, Ringing, Redial
Test Setup:	Table-top
Size of the EUT:	18.4(cm) x 17.7(cm) x 8.0(cm)

Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.
EW-1734	AM/FM Signal Generator	IFR	2023B	202304/970
EW-2110	RF Power Amplifier	OPHIR RF	5127FE	1011
EW-1902	Trilog Super Broadband Test Antenna 30MHz-3000MHz	SCHWARZBECK	VULB 9163	VULB 9163-199

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Test Results

EN 61000-4-3
Radiated Immunity

Frequency (MHz)	Exposed Side	Field Strength (V/m)	Result (Pursuant to EN55024 criterion A)
80 to 1000	Front	3V/m (rms)	OK
80 to 1000	Left	3V/m (rms)	OK
80 to 1000	Rear	3V/m (rms)	OK
80 to 1000	Right	3V/m (rms)	OK

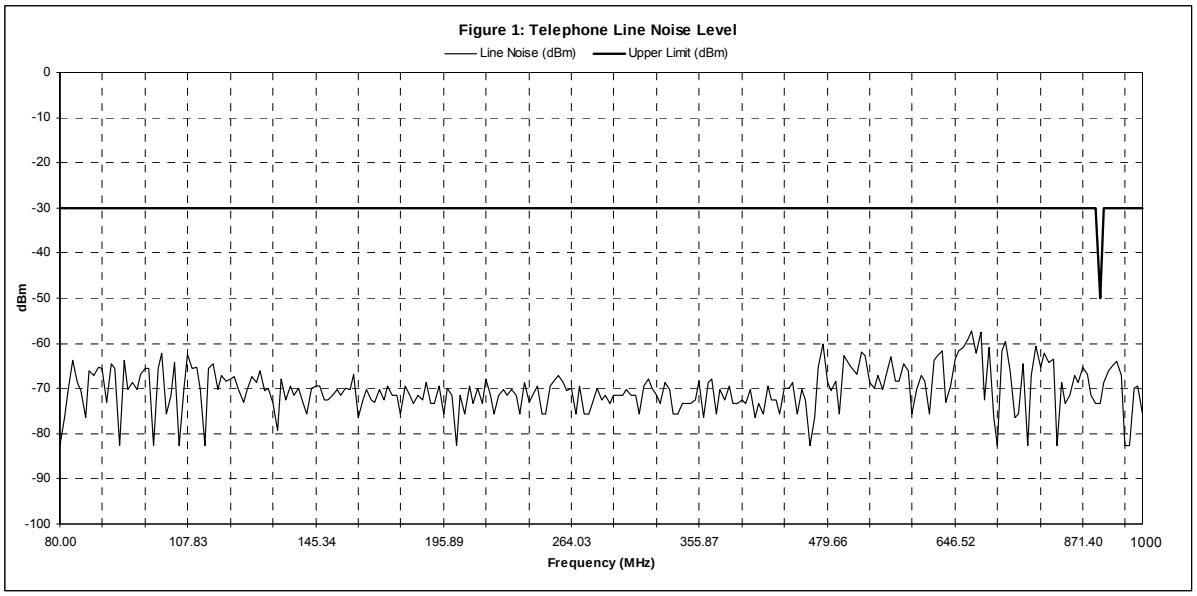
☒ Additional Information

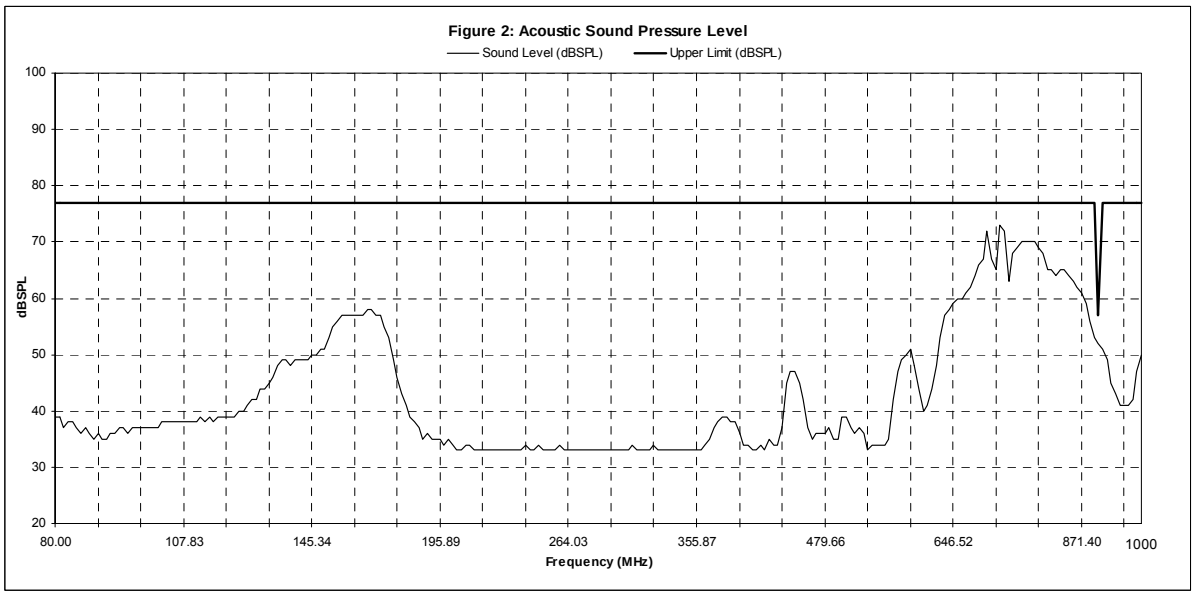
☒ See attached figures with Ctrl. No.: 12.2

☐ EUT stopped operation and could/ could not be reset by operator at _____V/m of frequency _____MHz.

☒ Meet particular performance criteria stated in the relevant Annex(s) of EN55024.

Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600
Operating Mode: Handset On Line
Volume Setting: Max
Reference Level: 67 dBSPL
Antenna Orientation: Horizontal





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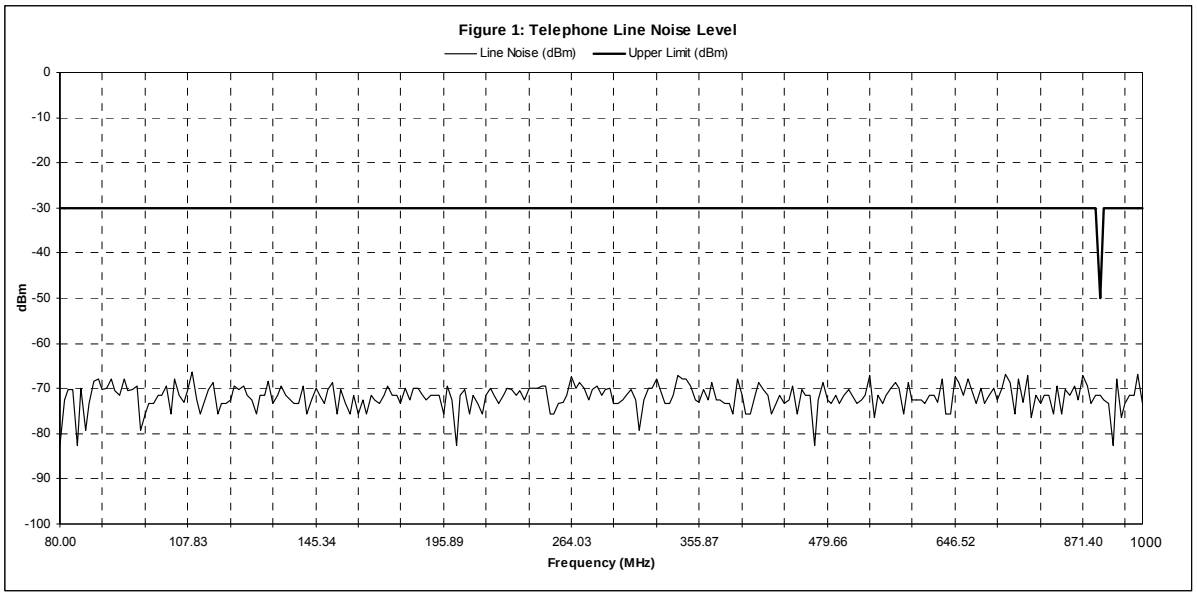
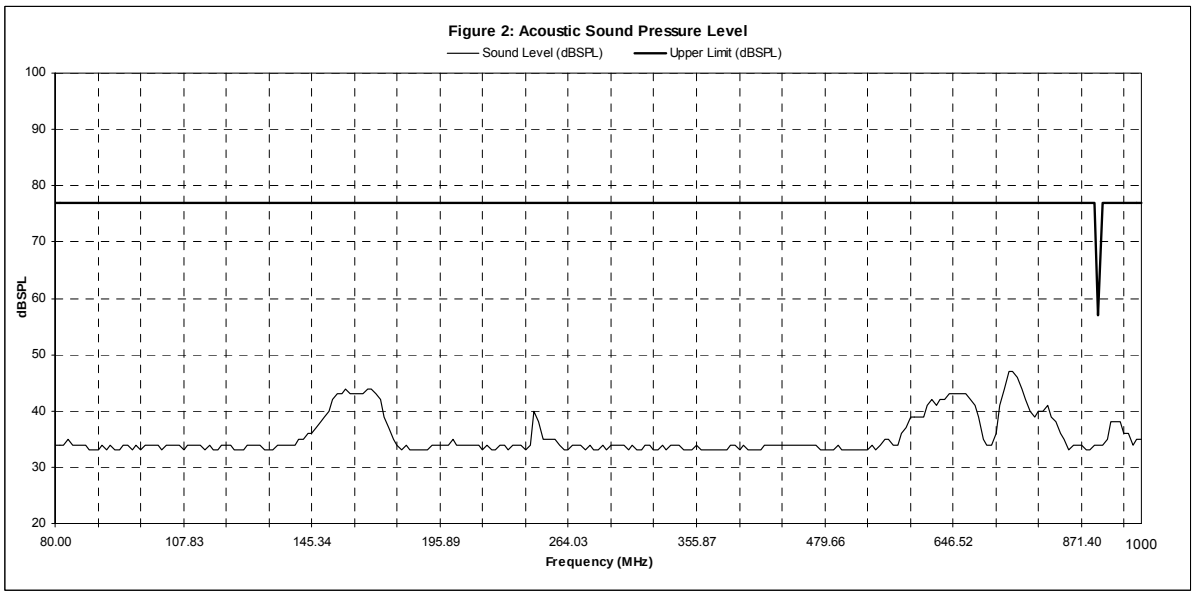
Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600
Operating Mode: Handset On Line
Volume Setting: Max
Reference Level: 67 dBSPL
Antenna Orientation: Vertical





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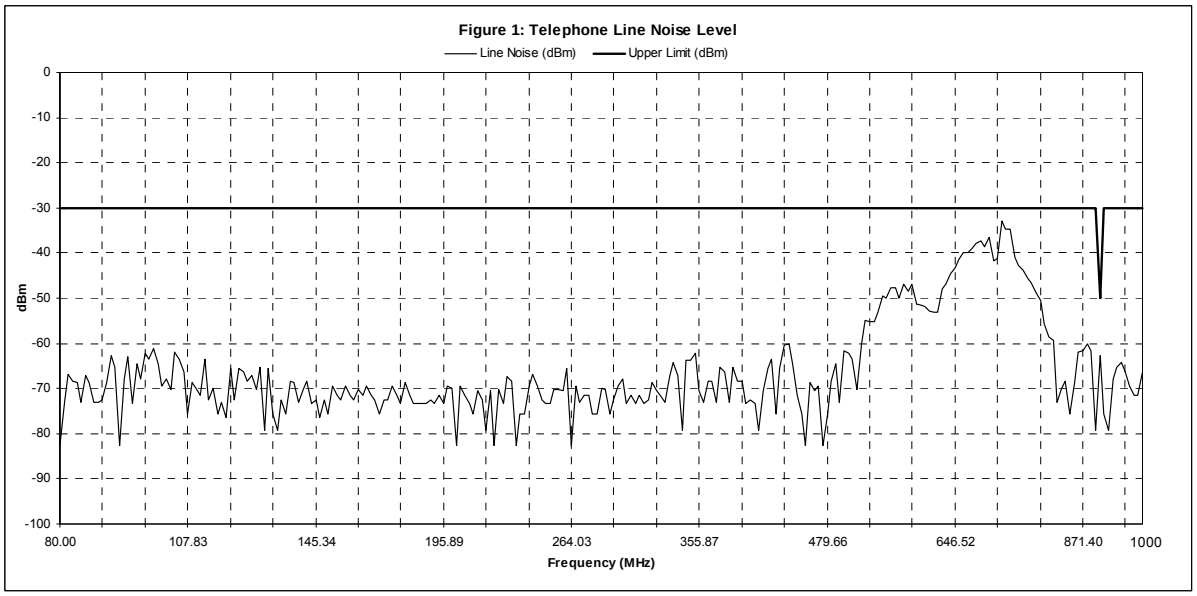
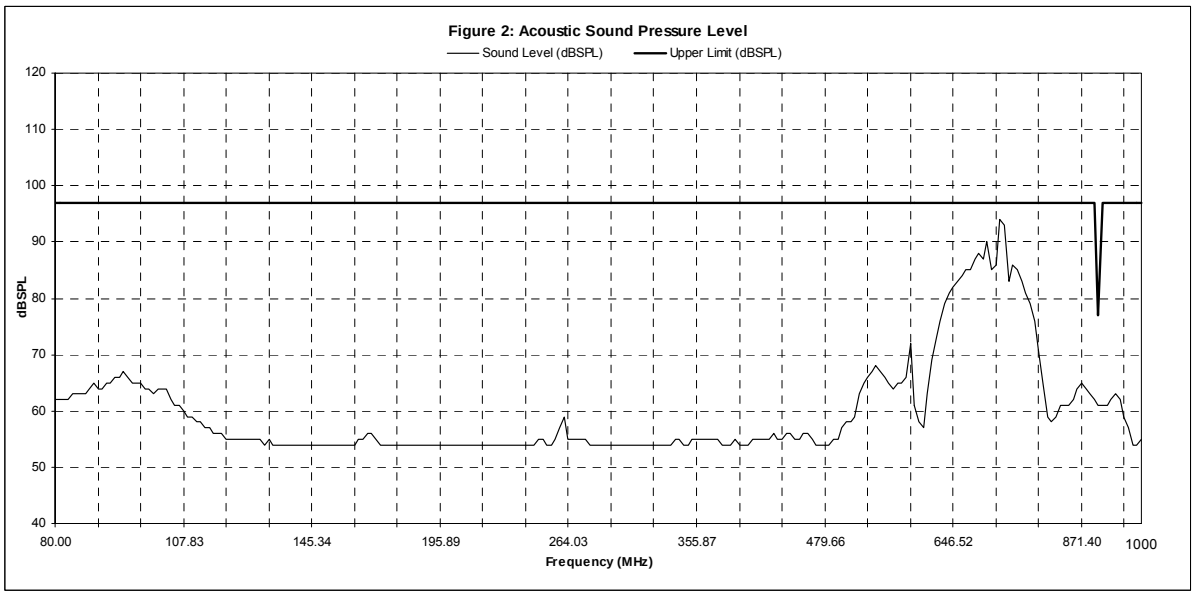
Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600
Operating Mode: Speakerphone On Line
Volume Setting: Max
Reference Level: 87 dBSPL
Antenna Orientation: Horizontal





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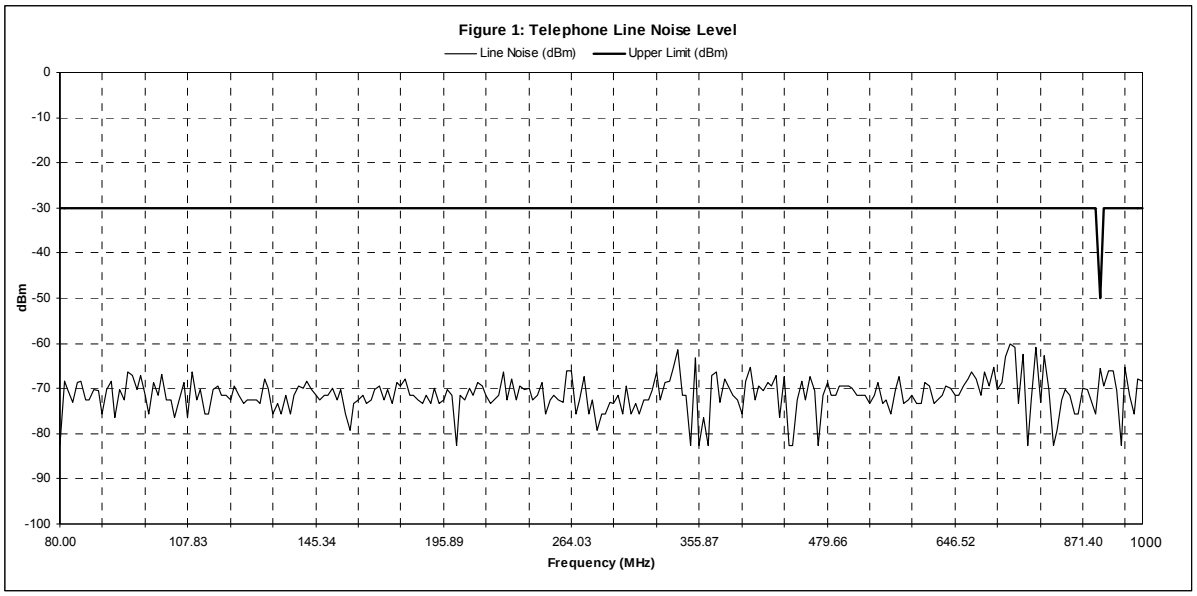
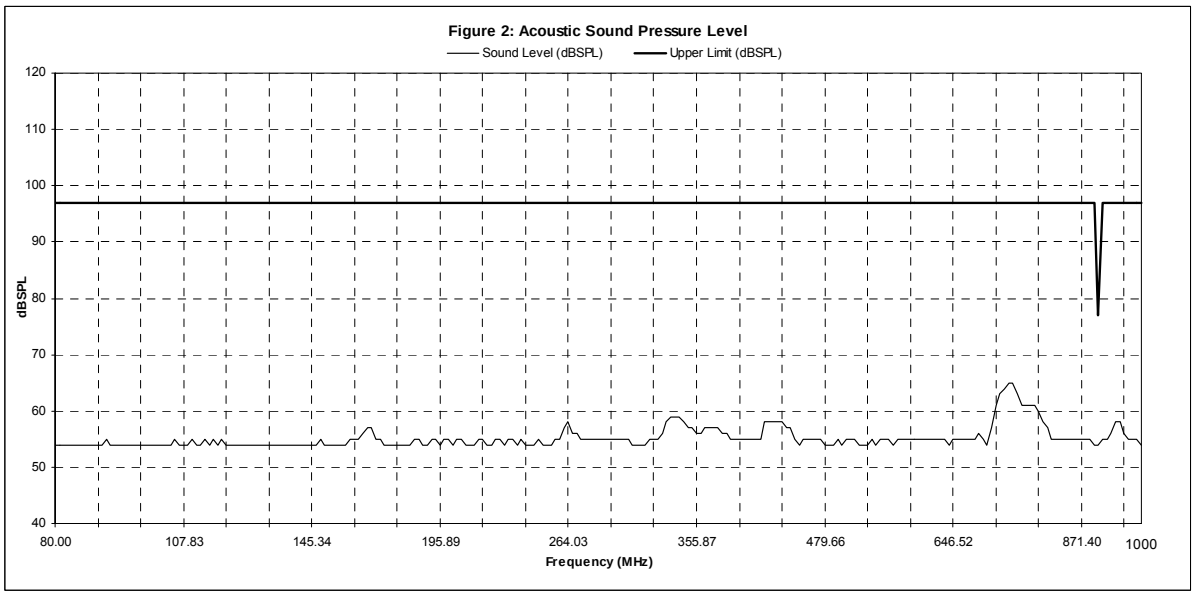
Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600
Operating Mode: Speakerphone On Line
Volume Setting: Max
Reference Level: 87 dBSPL
Antenna Orientation: Vertical





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EN 61000-4-4
Electrical Fast Transient/Burst

Test Summary (Pursuant to EN55024)

Basic Standard:	EN 61000-4-4	
Port:	A.C. Power Lines	D.C. Power Lines, Signal Lines and Telecommunication Ports
Required Performance Criterion:	B	
Level:	±1.0kV	±0.5kV
Test Duration:	1 minute	
Test Mode:	Standby, Handset In Line, Speakerphone On Line, Incoming Caller ID, Ringing, Redial	
Test Setup:	Table-top	
Generator Drive:	Internal	
Sequence of Application:	Each One	

Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.
EW-1214	Best EMC	Schaffner	Best-EMC-1	200030-0101SC

Test Results

EN 61000-4-4
Electrical Fast Transient/Burst

Port	Level	Result (Pursuant to EN55024 criterion B)
A.C. Power Lines	+1kV	N/A
	-1kV	N/A
D.C. Power Lines, Signal Lines and Telecommunication Ports	+0.5kV	OK
	-0.5kV	OK

☒ Additional Information

☐ No observable change

☐ EUT stopped operation and could/ cold not be reset by operator at ___kV of Burst.

☐ EUT was in abnormal operation:
- operation mode was changed from _____ to _____ at _____ kV of Burst.

☒ Meet particular performance criteria stated in the relevant Annex(s) of EN55024.

EN 61000-4-5
Surge Immunity

Test Summary (Pursuant to EN55024)

Basic Standard:	EN 61000-4-5	
Port:	Telecommunication Lines	
	Tip And Ground	Ring And Ground
Level:	5 Positive And 5 Negative Surges	
	±1kV	±1kV
Generator Impedance:	2 ohm	2 ohm
Required Performance Criterion:	B	
Repetition Rate:	1 minute	
Test Mode:	Standby, Handset On Line, Speakerphone On Line, Incoming Caller ID, Ringing, Redial	
Test Setup:	Table-top	
Surge Generator Trigger:	Internal	
Installation Condition:	Class 3: Electrical environment where cables run in parallel.	
Phase Angle:	0^o, 90^o, 180^o, 270^o	

Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.
EW-0697	Keytek ECAT Surge System	KEYTEK	Keytek ECAT Surge Sstem	9909189

Test Results

EN 61000-4-5
Surge Immunity

Level		Result (Pursuant to EN55024 criterion B)
Between Tip And Ground:	±1kV	OK
Between Ringing And Ground:	±1kV	OK

☒ Additional Information

☐ No observable change

☐ EUT stopped operation and could / could not be reset by operator at _____ V of Surge.

☐ EUT was in abnormal operation:
- operation mode was changed from _____ to _____ at _____ V of Surge.

☒ Meet particular performance criteria stated in the relevant Annex(s) of EN55024.

EN 61000-4-6
Injected Current (0.15 MHz to 80 MHz)

Test Summary (Pursuant to EN55024)

Basic Standard:	EN 61000-4-6
Port:	D.C. Power Lines, Signal Lines and Telecommunication Ports
Required Performance Criterion:	A
Level:	3.0V (rms)
Cable Length between CDN and EUT:	30cm
Used coupling and decoupling device:	EW-0992
CDN terminated by 50Ω load:	N/A
Test Modulation:	1 kHz, 80% AM
Frequency:	0.15 MHz to 80 MHz
Dwell Time:	1s
Frequency Step:	1%
Temperature:	23°C
Relative Humidity:	52%
Coupling Factor of CDN:	-1.0dB ~ –1.7dB
Test Mode:	Standby, Handset On Line, Speakerphone On Line, Incoming Caller ID, Ringing, Redial
Test Setup:	Table-top
Size of the EUT:	18.4(cm) x 17.7(cm) x 8.0(cm)
Equipment Under Test (EUT):	Single Unit

Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.
EW-0992 for TC port	ISN	R&S	ENY22	833823/004
EW-0892	Amplifier Research RF Power Amplifier (75W)	AMP SEARCH	75A250	26543
EW-0611	AM/FM Signal Generator	IFR	2023B	202304/970
EW-2114	6dB Attenuator DC to 1.5GHz	AEROFLEXINME	1N100W-6dB	Nil

Test Results

EN 61000-4-6
Injected Current (0.15 MHz to 80 MHz)

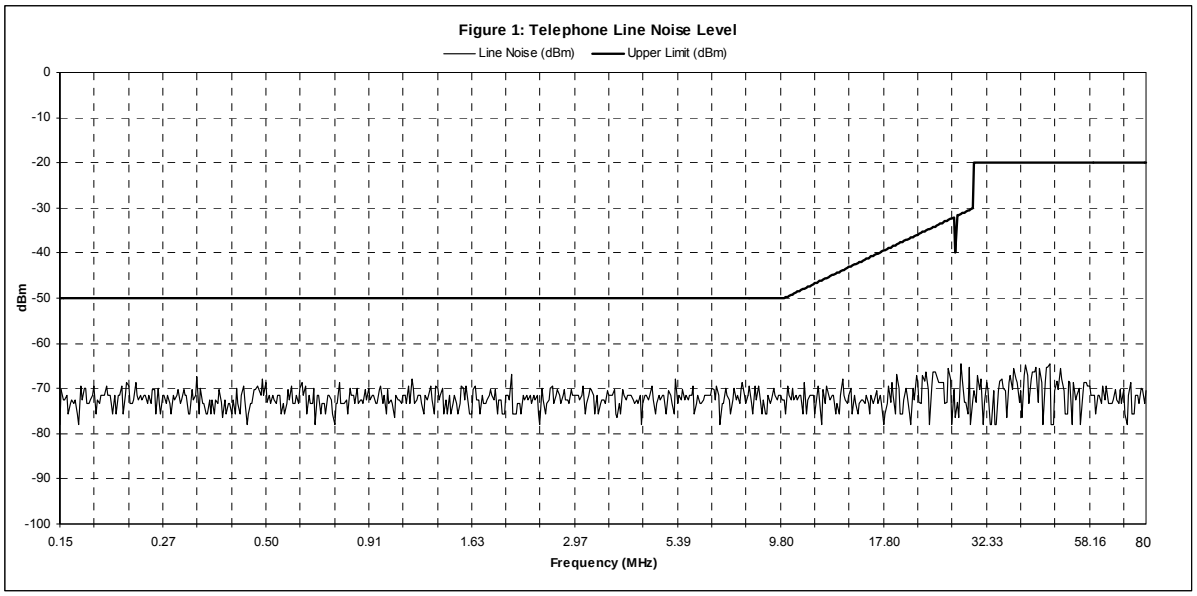
Port:	Frequency (MHz)	Level	Result (Pursuant to EN55024 criterion A)
A.C. Power Lines	0.15 to 80	3V (rms)	N/A
D.C. Power Lines	0.15 to 80	3V (rms)	N/A
Signal Lines	0.15 to 80	3V (rms)	N/A
Telecommunication Ports	0.15 to 80	3V (rms)	OK

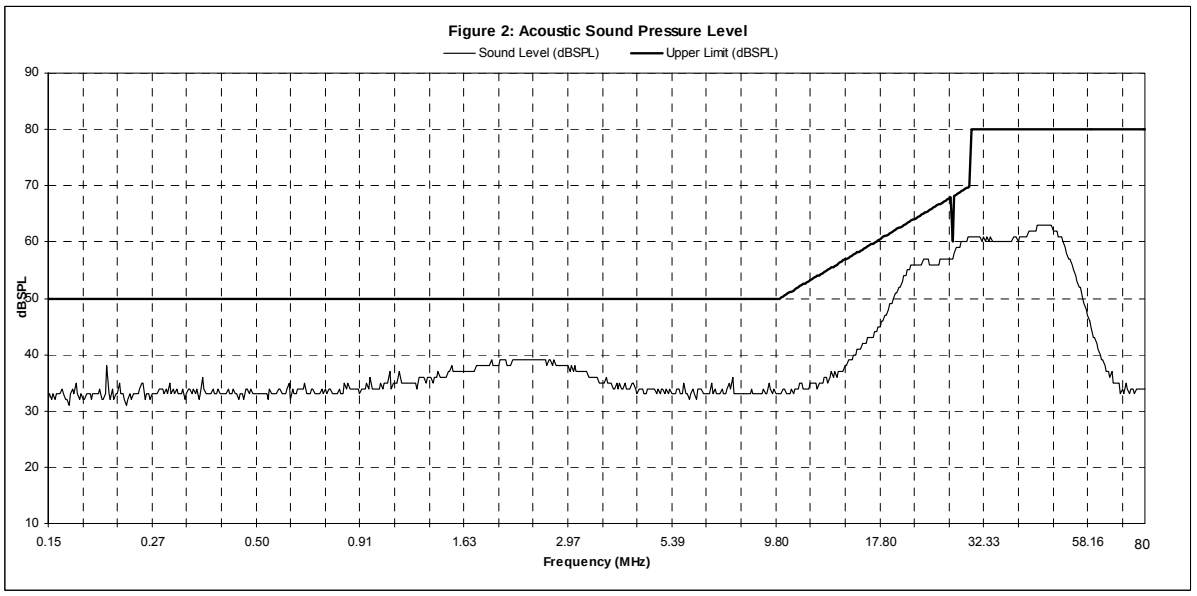
☒ Additional Information

☒ See attached figures with Ctrl. No.: 8.1.3

☒ Meet particular performance criteria stated in the relevant Annex(s) of EN55024.

Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600
Operating Mode: Handset On Line
Volume Setting: Default
Reference Level: 60 dBSPL
Tested Port: Telecommunication





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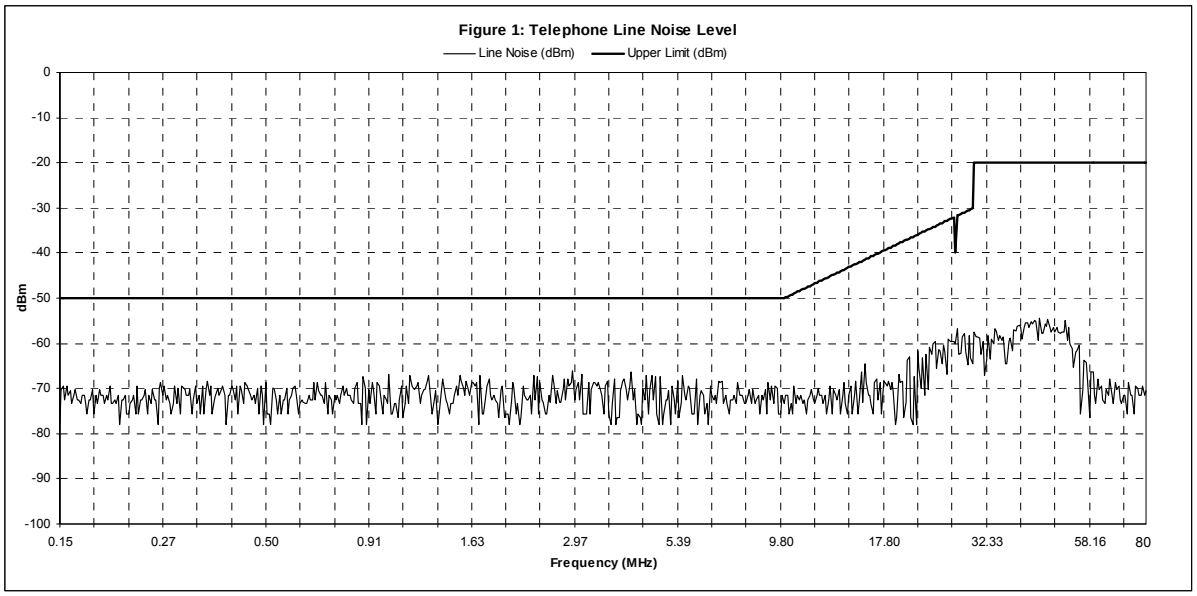
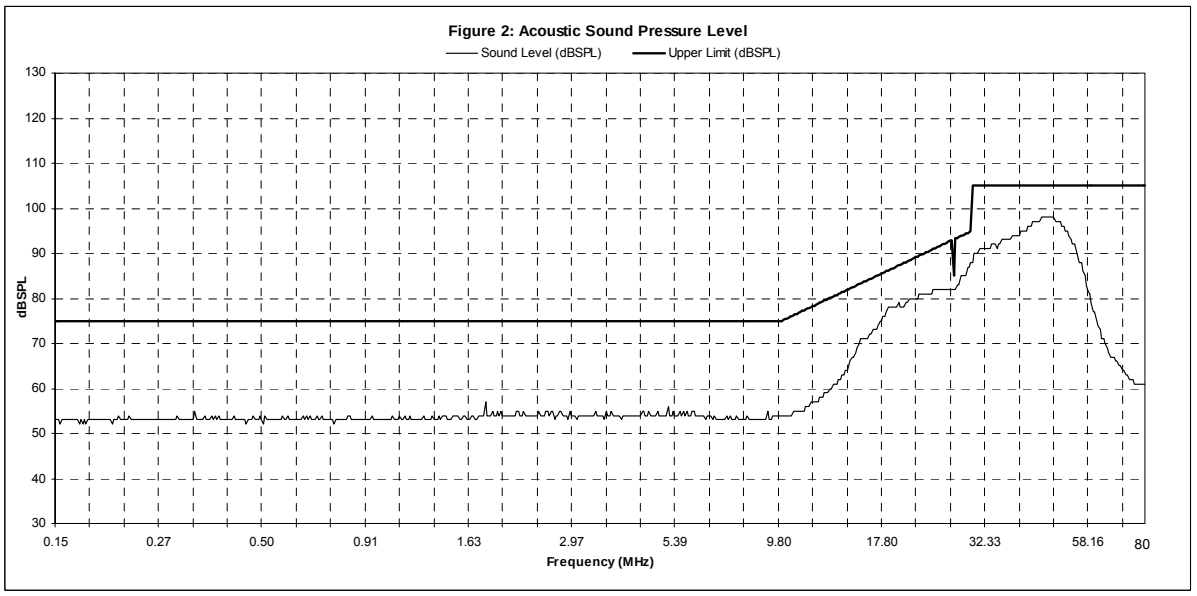
Applicant: Binatone Electronics International Ltd. Report No.: HK09031619-2
Model: B600
Operating Mode: Speakerphone On Line
Volume Setting: Default
Reference Level: 85 dBSPL
Tested Port: Telecommunication





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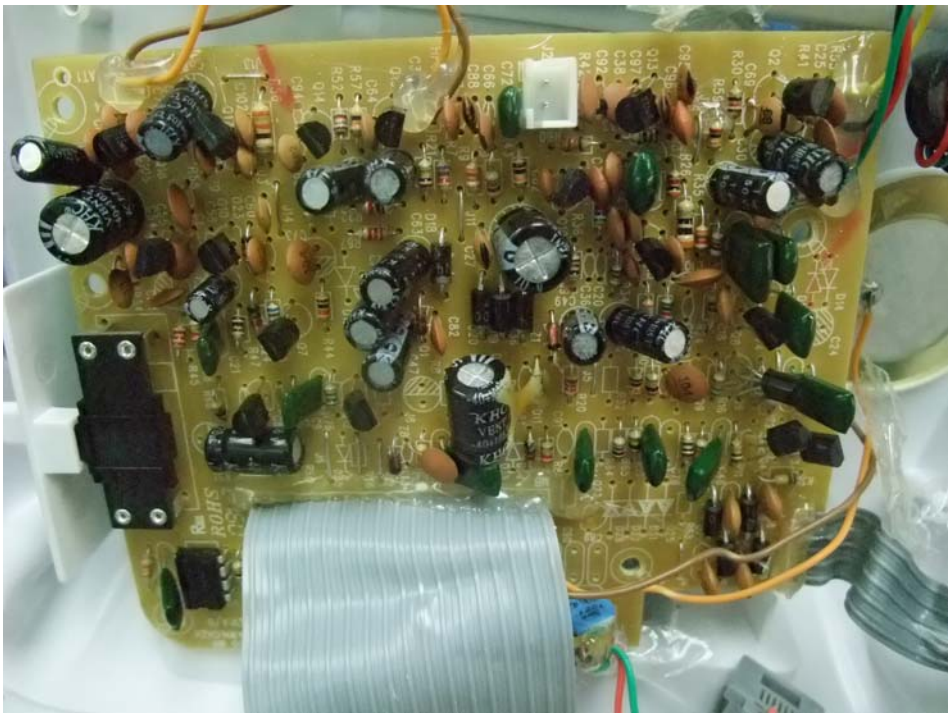
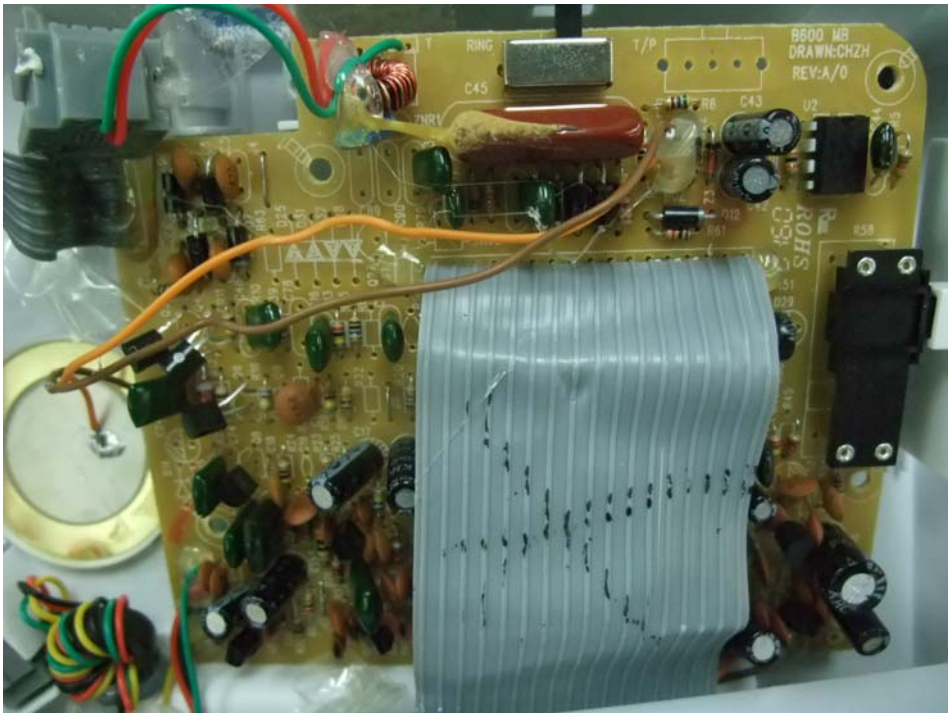
Appendix : EUT Photos

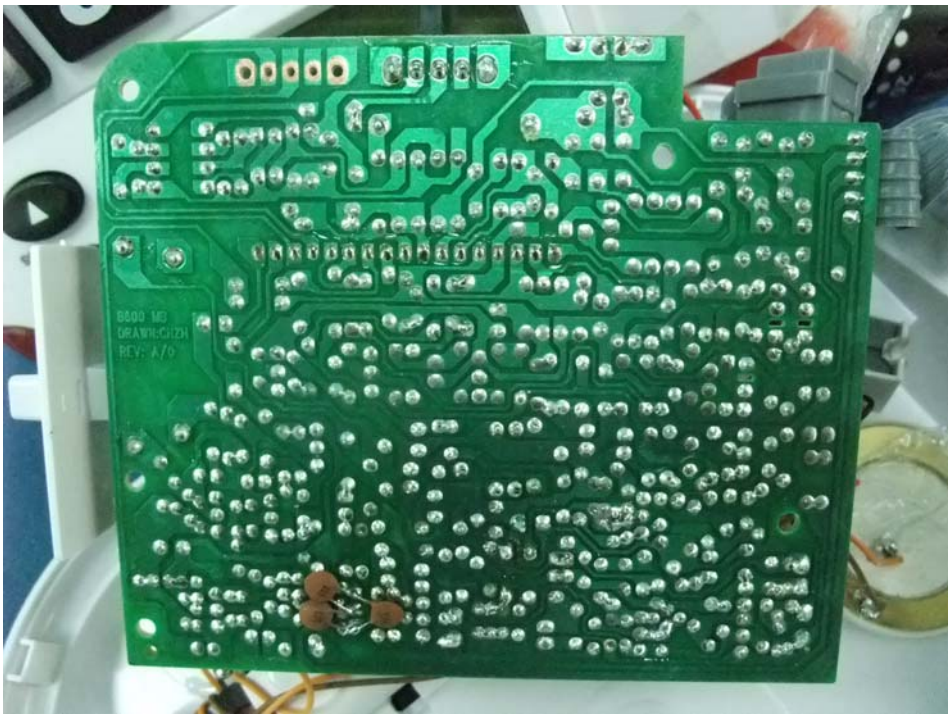
External Photos

Internal Photos



Internal Photos





INTERTEK TESTING SERVICES

TO OUR CLIENTS

GUIDELINES FOR COMPLETING A DECLARATION OF CONFORMITY

There are many Directives and Standards in place, and you should assure yourself that the correct ones have been applied to your product.

The attached blank Declaration of Conformity complies with the format published in the Official Journal of the European Community. To complete the form:

1. List all applicable Directives, by number, on the top lines.

   e.g. 88/378/EEC for Toy Directive
   2004/108/EC for EMC Directive
   2006/95/EC for Low Voltage Directive
   93/68/EEC for CE Marking Directive
   1999/5/EC for R&TTE Directive

2. List the Standards under these Directives to which conformity is being declared. Intertek Testing Services test report(s) which you should retain to support your declaration contain this information.

3. Add manufacturer's and importer's name and address. The importer should be located within the EU.

4. Specify the type of equipment and model. You may list a block of serial numbers corresponding to the import quantity during the year of manufacture shown.

5. The Declaration of Conformity should be signed by the manufacturer or his authorized representative established within the EU.

NOTES:

A. A COPY OF THE DECLARATION MUST ACCOMPANY IMPORT PAPERS INTO THE EC. ADDITIONAL COPIES MAY ALSO BE SUPPLIED IN EACH PRODUCT CARTON, WITH EACH PALLETIZED SHIPMENT, IN THE INSTRUCTION MANUAL OR ON THE WARRANTY CARD.

B. THE IMPORTER OR THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE MUST KEEP THE DECLARATION OF CONFORMITY AND THE TEST REPORTS AT THE DISPOSAL OF THE AUTHORITIES FOR A PERIOD OF TEN YEARS AFTER THE EQUIPMENT HAS BEEN PLACED ON THE MARKET.

Declaration of Conformity

Application of Council Directive(s):

_____

Standard(s) to which Conformity is Declared:

_____

Manufacturer's Name : .....

Manufacturer's Address : .....

.....

Import's Name : .....

Import's Address : .....

.....

Type of Equipment : .....

Model No. : .....

Serial No. : .....

Year of Manufacturer : .....

I' the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Place : .....

_____
(Signature)

Date : .....

_____
(Full Name)

_____
(Position)